

## **Synonym**

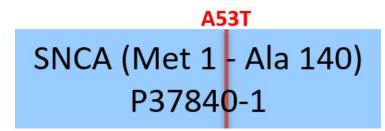
SNCA, NACP, PARK 1, alpha-Synuclein

#### Source

Human Alpha-Synuclein (A53T) Pre-formed Fibrils Protein, Tag Free(ALN-H5114) is expressed from E. coli cells. It contains AA Met 1 - Ala 140 (Accession # P37840-1 (A53T)).

Predicted N-terminus: Met 1

#### **Molecular Characterization**



This protein carries no "tag".

The protein has a calculated MW of 14.5 kDa.

#### **Endotoxin**

Less than 1.0 EU per µg by the LAL method.

# **Purity**

>90% as determined by SDS-PAGE.

#### **Formulation**

Supplied as 0.2 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

# **Shipping**

This product is supplied and shipped with dry ice, please inquire the shipping cost.

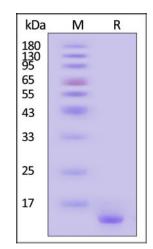
## **Storage**

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- The product should be stored at -70°C or room temperature for short storage. Do not store fibrils on ice or at 4°C;
- The unsonicated fibril is validated to be stable after storage at -70°C for 1 year under sterile conditions;
- The sonicated fibril should be stored at -70°C for not more than 8 weeks.

# **SDS-PAGE**



Alpha-Synuclein monomer on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

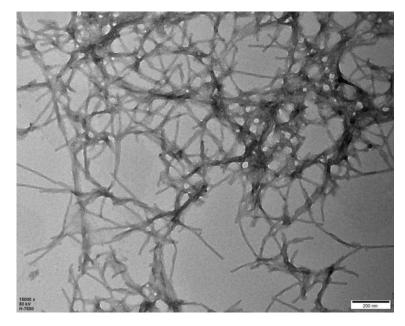
# **Electron Microscope**



# Human Alpha-Synuclein (A53T) Pre-formed Fibrils Protein, Tag Free

Catalog # ALN-H5114





Transmission electron microscopy (TEM) of Alpha-Synuclein (A53T) Pre-formed Fibrils (Cat. No. ALN-H5114). Fibril structure is visible on negative stain TEM images of ALN-H5114 (Routinely tested).

# Background

Alpha-synuclein is a neuronal protein that plays several roles in synaptic activity such as regulation of synaptic vesicle trafficking and subsequent neurotransmitter release. It acts also as a molecular chaperone in its multimeric membrane-bound state, assisting in the folding of synaptic fusion components called SNAREs (Soluble NSF Attachment Protein REceptors) at presynaptic plasma membrane in conjunction with cysteine string protein-alpha/DNAJC5. Abnormalities in alpha-synuclein are implicated in the pathogenesis of Parkinson's disease (PD). Alpha-synuclein is present in Lewy-bodies, the neuropathological hallmark of PD, and the protein and its aggregation have been widely linked to neurotoxic pathways that ultimately lead to neurodegeneration.

## **Clinical and Translational Updates**

